

# **BIODIVERSITY INVESTMENT AREAS: Ranking Critical Areas in the Great Lakes Basin**

(full report found on your *State of the Great Lakes 2001* CD; summary report at [www.binational.net](http://www.binational.net))

**Karen Rodriguez**  
*Great Lakes National Program Office*

**Biodiversity Investment Areas  
are natural areas having high  
ecological value which warrant  
exceptional attention to  
protect them from  
degradation.**

*from Land by the Lakes, a report for (SOLEC) State  
of the Great Lakes Ecosystem Conference 1996*

*[www.epa.gov/glnpo/solec](http://www.epa.gov/glnpo/solec)*

# Biodiversity Investment Areas (BIAs)

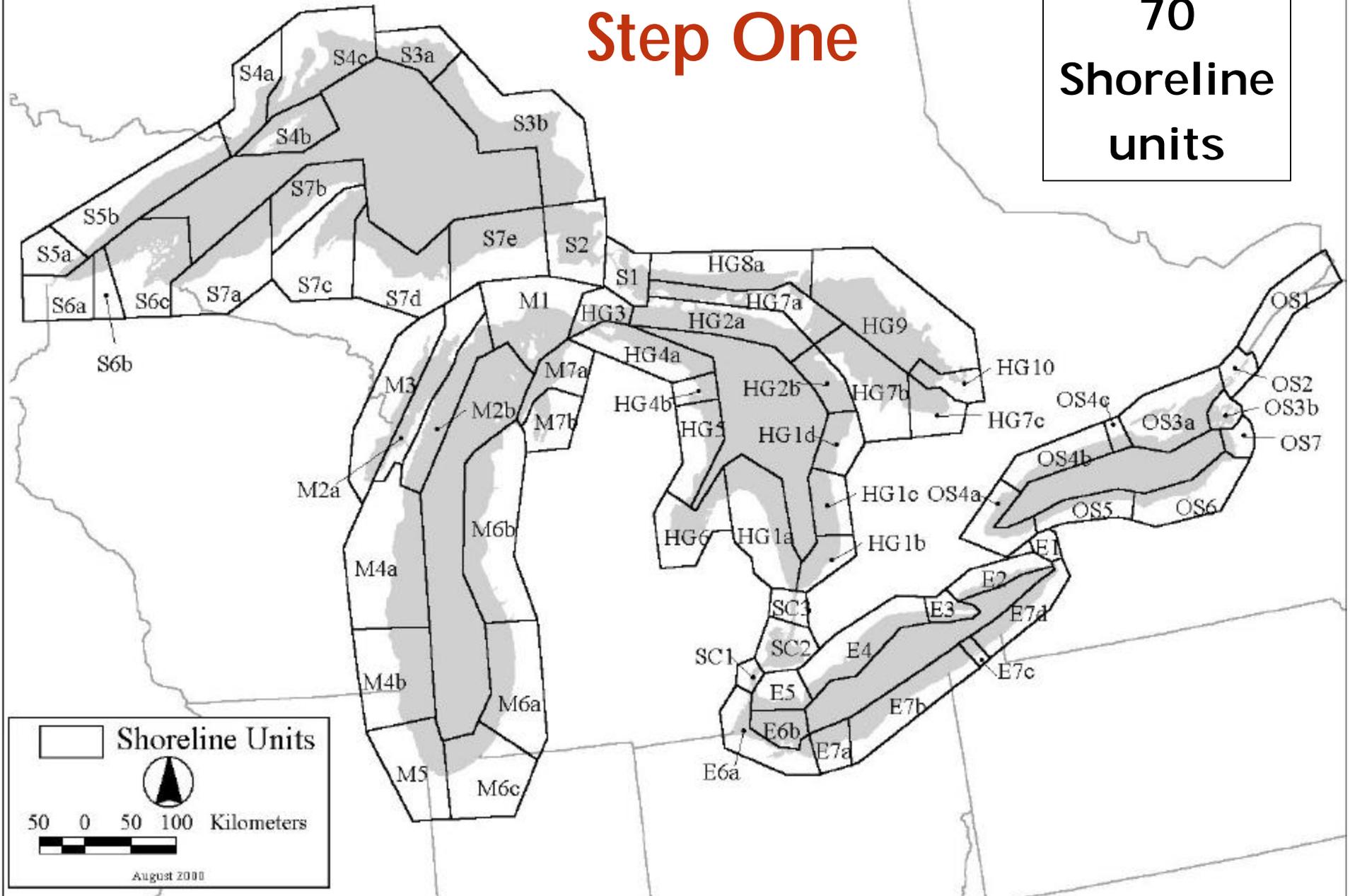
- Broad areas, not isolated sites
- Clusters of exceptional biodiversity values
- Coastal areas only at this time
- High potential for restoration as well as pristine

# Why BIAs?

- Focus attention
- Engage citizens and agencies
- Great Lakes Water Quality Agreement goal
- International commitments
- Benchmarks for ecological indicators

# Integration Process Step One

70  
Shoreline  
units



# Integration Process

## Step Two

- Develop integrated over-arching criteria
- *Criterion 1: Species or communities of special interest*
- *Criterion 2: Diversity of habitats, communities and species*
- *Criterion 3: Productivity and integrity*

# Integration Process

## Step Three

- Identify available data sets to assess each criterion
- 10 data sets used
- For each data set, compare relative values for each shoreline unit - adjust for shoreline length
- Compile to derive a relative rank for each criterion

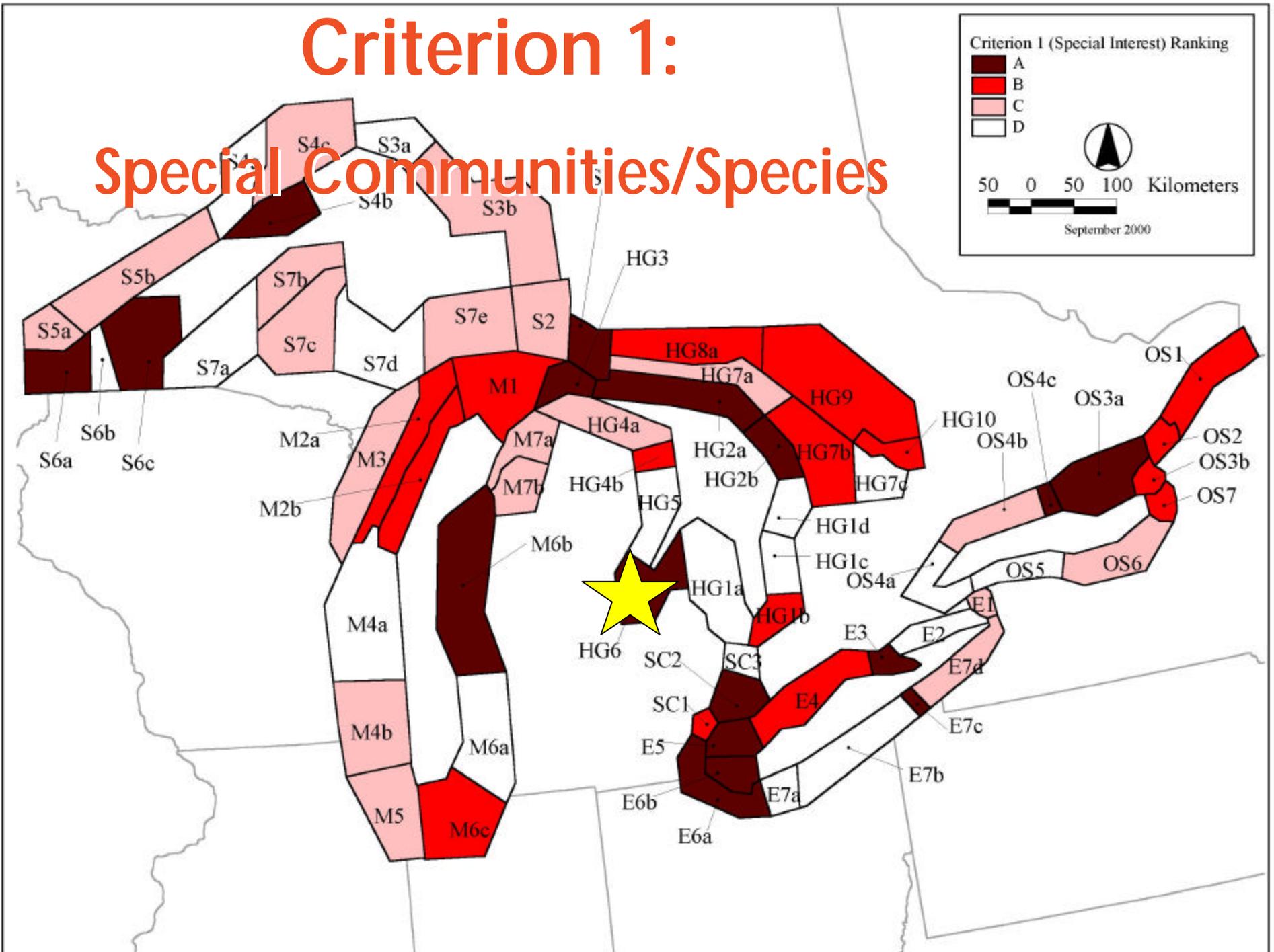
# **Data sets for Criterion 1**

## **Special communities/species**

- Rare species and community occurrences
- High-quality habitat areas
- Coastal wetlands
- Important Bird Areas

# Criterion 1:

## Special Communities/Species

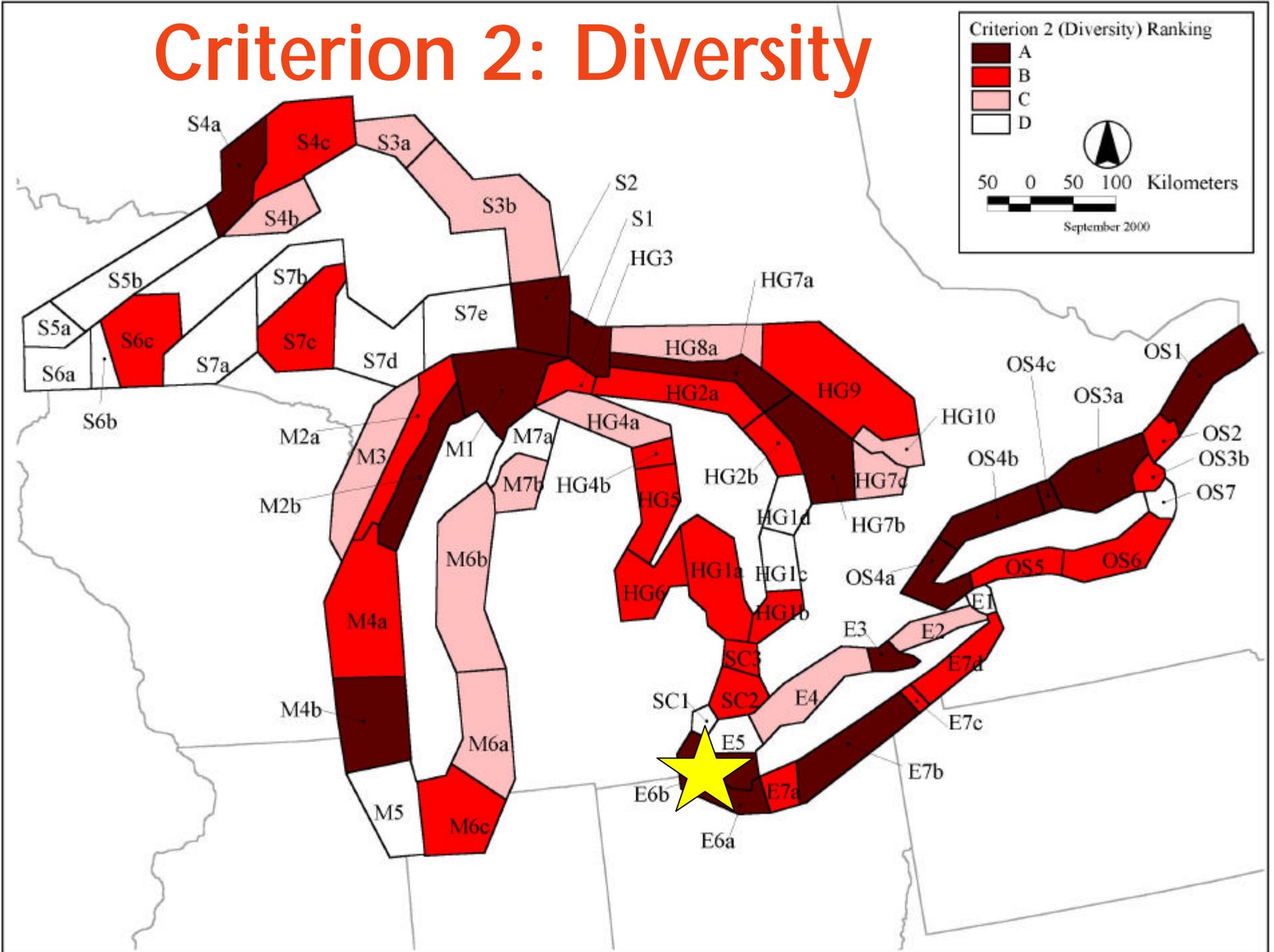


# Data sets for Criterion 2

## Diversity

- Shoreline substrate diversity
- Shoreline complexity
- Fish spawning and nursery areas

# Criterion 2: Diversity



# Data sets for Criterion 3

## Productivity and Integrity

- Percentage of shoreline hardened
- Trophic degradation of nearshore waters
- Historic wetland loss

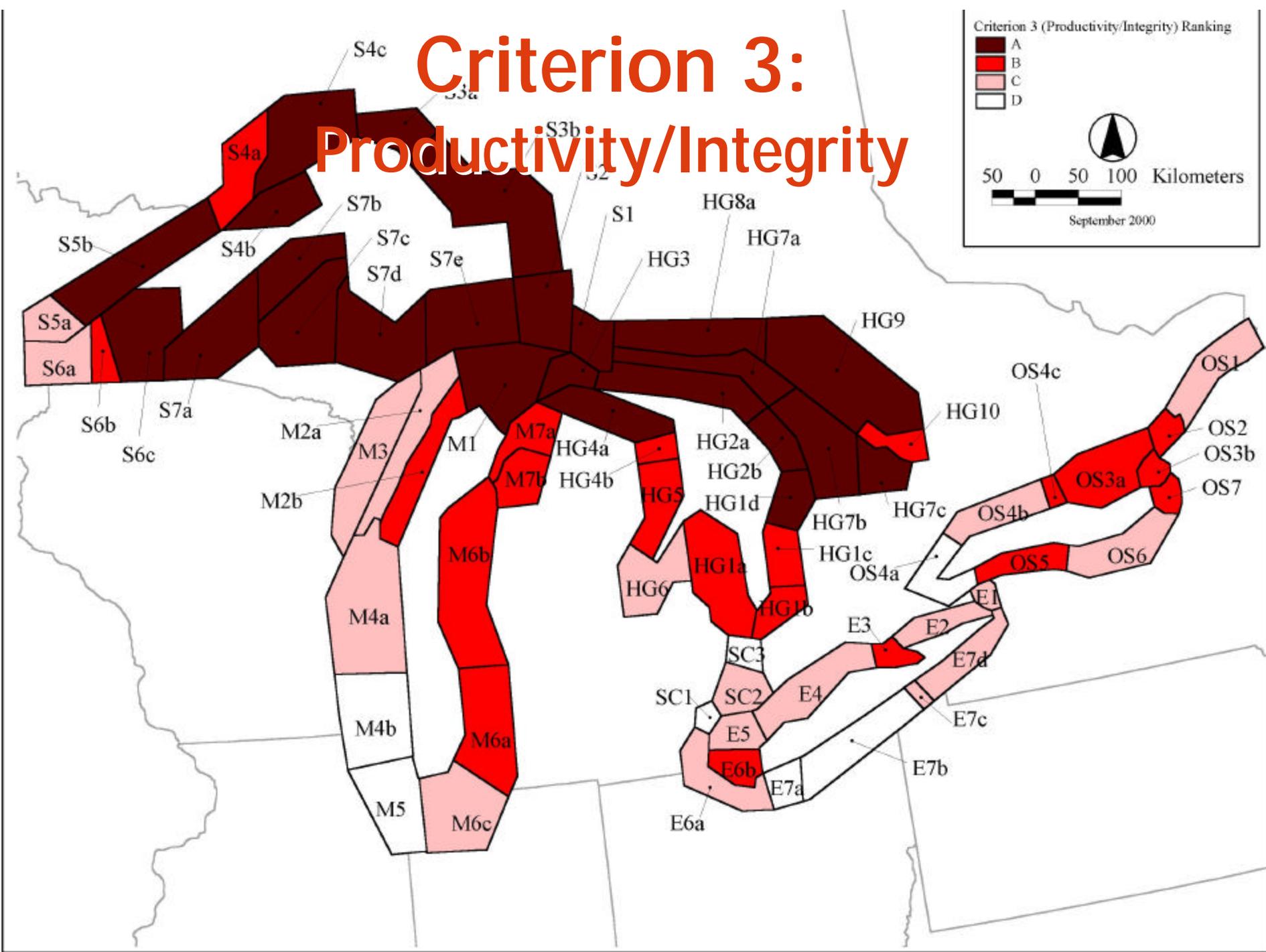
# Criterion 3: Productivity/Integrity

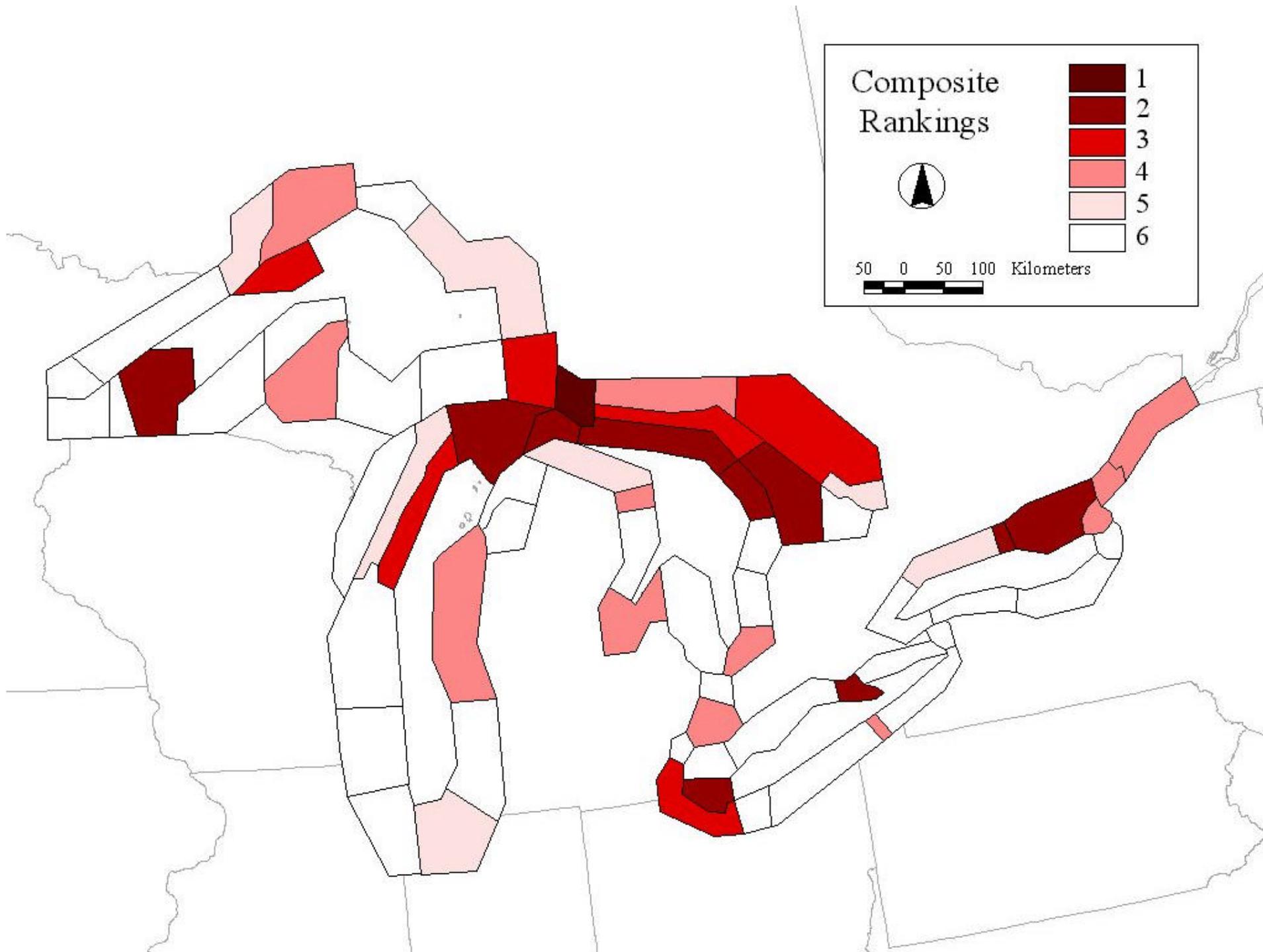
Criterion 3 (Productivity/Integrity) Ranking

Dark Red	A
Red	B
Light Red	C
White	D

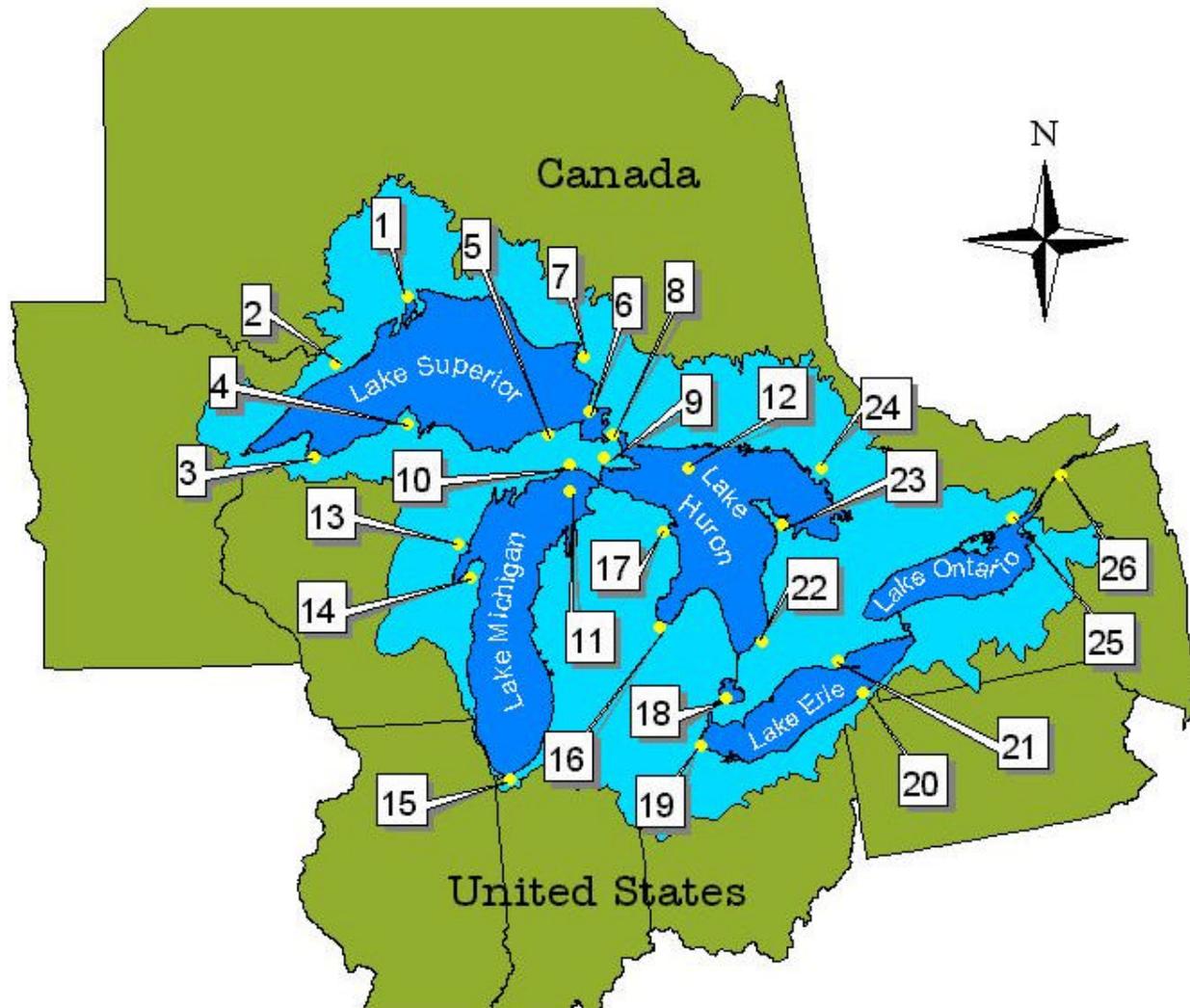
50 0 50 100 Kilometers

September 2000





# Great Lakes Biodiversity Investment Areas



- 1 Superior North
- 2 Lake Superior Highlands
- 3 Great Chequamegon Region
- 4 Keweenaw Peninsula
- 5 Grand Sable Dunes
- 6 Batchawana Bay- Whitefish Bay
- 7 Eastern Lake Superior
- 8 St. Mary's River
- 9 Lake Huron North Channel
- 10 Mackinac- Lake Michigan North Shore
- 11 Michigan Islands
- 12 Mackinac- Manitoulin
- 13 Green Bay Western Shore
- 14 Door County Peninsula
- 15 Chicago Wilderness
- 16 Saginaw Bay
- 17 Misery Bay
- 18 Lake St. Clair/ Detroit River
- 19 Western Lake Erie
- 20 Presque Isle
- 21 Long Point
- 22 Kettle Point- Grand Bend
- 23 Bruce Peninsula
- 24 Eastern Georgian Bay
- 25 Eastern Lake Ontario
- 26 St. Lawrence River Corridor